

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A method for identifying a compound which modulates binding between p21 and cyclin D1, said method comprising the steps of:

(A) contacting a first substance of inhibiting the activity of a G1 cdk, comprising contacting said edk with a substance which is selected from the group consisting of:

- (i) a peptide fragment of 40 amino acids or less of p21;
- (ii) a derivative of the peptide fragment of (i);
- (iii) the peptide fragment of (i) coupled to a non-peptidyl coupling partner;
- (iv) the derivative of (ii) coupled to a non-peptidyl coupling partner;
- (v) the peptide fragment of (i) coupled to a non-p21 peptide sequence; and
- (vi) the derivative of (ii) coupled to a non-p21 peptide sequence;

wherein the peptide fragment of (i) and/or the derivative of (ii) comprise[[s]] the motif:



wherein

- (a) x comprises any amino acid;
- (b) y and z comprise hydrophobic amino acids;
- (c) K is present, deleted or replaced by another amino acid; and
- (d) P is present, deleted or replaced by another amino acid;

with a second substance comprising cyclin D1 or a fragment thereof and a test compound, under conditions wherein, in the absence of the test compound being an inhibitor of binding of said first and second substances, said first substance and said second substance bind; and

(B) determining binding between said first substance and said second substance.

2. **(Previously Presented)** The method according to claim 1 wherein at least one of y or z comprises an amino acid selected from the group consisting of alanine, valine, leucine, isoleucine, proline, phenylalanine, tryptophan and methionine.

3. **(Currently Amended)** The method according to claim 1, wherein said first substance consists of the peptide fragment of 40 amino acids or less of p21 or an active portion or derivative thereof.

4. **(Previously Presented)** The method according to claim 1, wherein said peptide fragment consists of residues 16-35 of the p21^{WAF1} amino acid sequence or an active portion or derivative thereof.

5. **(Previously Presented)** The method according to claim 3 or 4, wherein said active portion or derivative has at least 80% identity over at least 5 amino acids of p21.

6. **(Withdrawn)** The method according to claim 1 wherein said substance is the peptide fragment or derivative thereof coupled to a non-p21 peptide sequence.

7. **(Withdrawn)** The method according to claim 6, wherein the non-p21 peptide sequence has the sequence RQIKIWFQNRRMKWKK.

8-10. **(Cancelled)**

11. **(Currently Amended)** The method according to claim 1 wherein the cdk activity comprises Rb phosphorylation is tested.

12. **(Currently Amended)** The method according to claim 1 wherein the induction of cell cycle arrest is tested.

13. **(Withdrawn)** The method according to claim 1, wherein said substance is the peptide fragment or derivative thereof coupled to a non-peptidyl coupling partner.

14. **(New)** A method for identifying a compound which modulates binding between p21 and Cdk4, said method comprising the steps of:

(A) contacting a first substance which is selected from the group consisting of:

- (i) a peptide fragment of 40 amino acids or less of p21;
- (ii) a derivative of the peptide fragment of (i);
- (iii) the peptide fragment of (i) coupled to a non-peptidyl coupling partner;
- (iv) the derivative of (ii) coupled to a non-peptidyl coupling partner;
- (v) the peptide fragment of (i) coupled to a non-p21 peptide sequence; and
- (vi) the derivative of (ii) coupled to a non-p21 peptide sequence;

wherein the peptide fragment of (i) and the derivative of (ii) comprise the motif:



wherein

- (a) x comprises any amino acid;
- (b) y and z comprise hydrophobic amino acids;
- (c) K is present, deleted or replaced by another amino acid; and
- (d) P is present, deleted or replaced by another amino acid;

with a second substance comprising Cdk4 or a fragment thereof and a test compound, under conditions wherein, in the absence of the test compound being an inhibitor of binding of said first and second substances, said first substance and said second substance bind; and

(B) determining binding between said first substance and said second substance.

15. (New) A method for identifying a compound which modulates binding between p21, cyclin D1 and Cdk4, said method comprising the steps of:

(A) contacting a first substance which is selected from the group consisting of:

- (i) a peptide fragment of 40 amino acids or less of p21;
- (ii) a derivative of the peptide fragment of (i);
- (iii) the peptide fragment of (i) coupled to a non-peptidyl coupling partner;
- (iv) the derivative of (ii) coupled to a non-peptidyl coupling partner;
- (v) the peptide fragment of (i) coupled to a non-p21 peptide sequence; and
- (vi) the derivative of (ii) coupled to a non-p21 peptide sequence;

wherein the peptide fragment of (i) and the derivative of (ii) comprise the motif:



wherein

- (a) x comprises any amino acid;

- (b) y and z comprise hydrophobic amino acids;
- (c) K is present, deleted or replaced by another amino acid; and
- (d) P is present, deleted or replaced by another amino acid;

with a second substance comprising cyclin D1 or a fragment thereof, a third substance comprising Cdk4 or a fragment thereof, and a test compound, under conditions wherein, in the absence of the test compound being an inhibitor of binding of said first and second substances, said first, second and third substances bind; and

- (B) determining binding between said first, second and third substances.

16. (New) A method for identifying a compound which modulates binding between p21 and cyclin D1, said method comprising the steps of:

- (A) contacting a first substance which is selected from the group consisting of:

- (i) a peptide fragment of 40 amino acids or less of p21;
- (ii) a derivative of the peptide fragment of (i);
- (iii) the peptide fragment of (i) coupled to a non-peptidyl coupling partner;
- (iv) the derivative of (ii) coupled to a non-peptidyl coupling partner;
- (v) the peptide fragment of (i) coupled to a non-p21 peptide sequence; and
- (vi) the derivative of (ii) coupled to a non-p21 peptide sequence;

wherein the peptide fragment of (i) and the derivative of (ii) comprise the motif:



wherein

- (a) x comprises any amino acid;
- (b) y and z comprise hydrophobic amino acids;
- (c) K is present, deleted or replaced by another amino acid; and
- (d) P is present, deleted or replaced by another amino acid;

with cyclin D1, or a fragment thereof, and a test compound, under conditions wherein, in the absence of the test compound, said first substance and cyclin D1, or fragment thereof, bind; and

- (B) determining binding between said first substance and cyclin D1, or fragment thereof, in the presence of the test compound.

17. (New) A method for identifying a compound which modulates binding between p21 and Cdk4, said method comprising the steps of:

(A) contacting a first substance which is selected from the group consisting of:

- (i) a peptide fragment of 40 amino acids or less of p21;
- (ii) a derivative of the peptide fragment of (i);
- (iii) the peptide fragment of (i) coupled to a non-peptidyl coupling partner;
- (iv) the derivative of (ii) coupled to a non-peptidyl coupling partner;
- (v) the peptide fragment of (i) coupled to a non-p21 peptide sequence; and
- (vi) the derivative of (ii) coupled to a non-p21 peptide sequence;

wherein the peptide fragment of (i) and the derivative of (ii) comprise the motif:



wherein

- (a) x comprises any amino acid;
- (b) y and z comprise hydrophobic amino acids;
- (c) K is present, deleted or replaced by another amino acid; and
- (d) P is present, deleted or replaced by another amino acid;

with Cdk4 and a test compound, under conditions wherein, in the absence of the test compound, said first substance and Cdk4 bind; and

(B) determining binding between said first substance and Cdk4 in the presence of the test compound.

18. (New) A method for identifying a compound which modulates binding between p21, cyclin D1 and Cdk4, said method comprising the steps of:

(A) contacting a first substance which is selected from the group consisting of:

- (i) a peptide fragment of 40 amino acids or less of p21;
- (ii) a derivative of the peptide fragment of (i);
- (iii) the peptide fragment of (i) coupled to a non-peptidyl coupling partner;
- (iv) the derivative of (ii) coupled to a non-peptidyl coupling partner;
- (v) the peptide fragment of (i) coupled to a non-p21 peptide sequence; and
- (vi) the derivative of (ii) coupled to a non-p21 peptide sequence;

wherein the peptide fragment of (i) and the derivative of (ii) comprise the motif:

KxxRRyFzP

wherein

- (a) x comprises any amino acid;
- (b) y and z comprise hydrophobic amino acids;
- (c) K is present, deleted or replaced by another amino acid; and
- (d) P is present, deleted or replaced by another amino acid;

with a cyclin D1, or a fragment thereof, Cdk4 and a test compound, under conditions wherein, in the absence of the test compound, said first substance, cyclin D1, or a fragment thereof, and Cdk4 bind; and

- (B) determining binding between said first substance, cyclin D1, or a fragment thereof, and Cdk4 in the presence of the test compound.